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## Present status of ichthy diversity of Batticaloa Lagoon, Sri Lanka and needs for the conservation

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The present study was to generate an inventory of the fin fish of Batticaloa lagoon and to assess the impact of water quality on the distribution of fishes. A total of 10504 fish specimens were collected, belonging to 85 species representing of 45 families. The species compositions of lagoon vary according to the physico-chemical characteristics of the lagoon water. Collected species were classified Estuarine dependent (ED), Marine seasonal (MS), Fresh water species and Reef associates (RF) according to their life cycle and capability to cope with salinity fluctuations. *Ambassis gymnocephalus* was the most abundant species (11.34%), followed by *Etroplus suratensis* (6.78%), *Arius maculatus* (6.33%) and *Gerres filamentosus* (5.61%); Sixty four percent (64.02%) of the collected species correspond to an estuarine dependent component, followed by marine seasonal (19.02%), freshwater component (13.12%), and very few are reef associates (3.84%) total numerical abundance. Only 10 species from 7 family of reef associate component sporadically occurred in the lagoon. Partial impoundments and causeway across the lagoon also influence on the migration of some fishes. Seasonal changes also have a great impact on the fish abundance and distribution of the lagoon. The information and observation in this study will be very useful in formulating management policies for the future use of Batticaloa lagoon especially multi-usage of fisheries with other sectors.

### Biography

Harris J. M completed his special degree in Zoology in 2009 and following Ph.D. at Eastern University, Sri Lanka, He published several paper in indexed peer reviewed international journals and also in conferences. He previously worked as District Aquaculture Extensio Officer at National Aquaculture Development Authority (NAQDA) and Assistant lecturer in department of Zoology at Eastern University. Years working and field experience in Marine Based ecosystem component as a Project Leader under the CIDA restore project which had been implemented with the assistance of Canadian International Development Agency (CIDA) in collaboration with Eastern University of Sri Lanka, South Eastern University and University of Ruhuna. He also worked as a supervisor for the survey of "Promoting Rural Income from Sustainable Aquaculture through social learning in Sri Lanka" in collaboration with University of Galgary, Canada, Wayamba University of Sri Lanka and Eastern University, Sri Lanka.

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